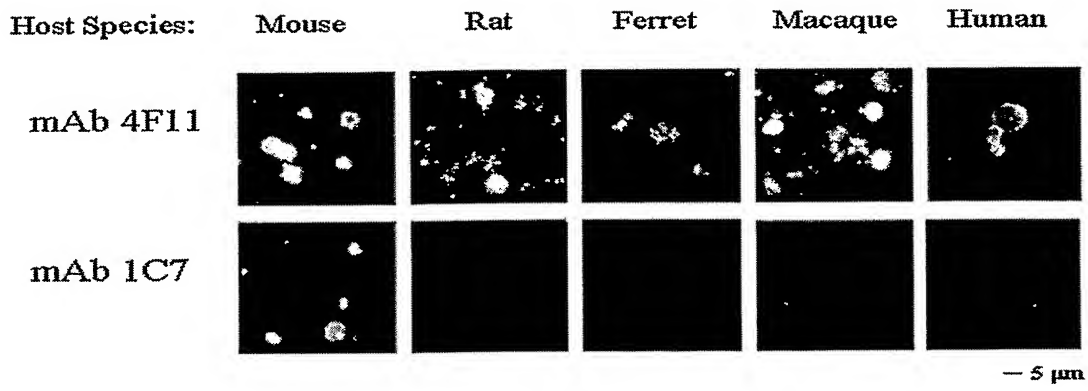

Figure 1

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2213 AACCAGCACCACCTCAACCAGCACCTCAACCAGCACCTCAACCAGCACCTCAACCAGCACCACCTCAACCAGCACCACCTCAACCAGTACCACCTCAACC
     V  P  P  Q  P  M  P  S  R  P  A  P  P  K  P  T  P  Q  P  T  S  E  P  A  P  Q  P  T  S  E  S  T  S  801
2313 AGTACCACCTCAACCAATGCCATCTAGACCAGCACCACCTAAACCAACACCTCAACCAACATCTGAGCCAGCACCTCAACCAACATCTGAGTCAACATCT
     E  P  T  P  R  P  P  P  Q  P  T  S  E  P  T  S  E  P  T  S  E  P  T  S  E  P  S  P  Q  P  T  P  Q  P 835
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     V  P  Q  P  A  P  Q  P  A  P  P  K  P  A  P  K  P  T  P  P  K  P  A  P  K  P  T  P  P  K  P  A  P  868
2513 CAGTACCTCAACCAGCACCTCAACCAGCACCACCTAAACCGGCACCTAAACCAACACCACCTAAACCGGCACCTAAACCAACACCACCTAAACCAGCGCC
     K  P  A  P  S  K  S  S  S  K  P  T  S  T
2613 TAAACCAGCACCATCTAAATCATCATCTAAACCAACATCTACA
```

Figure 2A

```
    T  N  I  S  E  P  A  L  P  D  K  D  P  Q  P  T  S  S  P  Q  P  K  P  R  P  R  P  R  P  Q  P  Q  P  H  34
  1 ACCAATATATCCGAACCAGCACTGCCTGATAAGGATCCTCAACCTACATCTTCACCTCAGCCAAAACCTCGGCCAAGACCTCGACCTCAACCTCAACCTC
    P  H  P  K  P  Q  P  Q  P  T  P  E  P  Q  P  Q  P  A  P  E  P  R  P  Q  P  T  S  K  P  R  P  Q  P  67
101 ATCCACATCCAAAACCTCAGCCTCAGCCGACGCCAGAACCTCAGCCTCAGCCGGCGCCAGAACCTCGACCTCAGCCGACGTCAAAACCTCGACCTCAGCC
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301 CCTCAACCTCAACCTCAGCCTCAACCTCAACCTCAGCCTCAACCTCAACCTCAGCCTCAGCCTCAGCCTCAGCCTCAGCCTCAACCTCAGCCGAAGCCTC
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    I  V  A  I  I  I  G  I  W  I  M  *
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Figure 2B

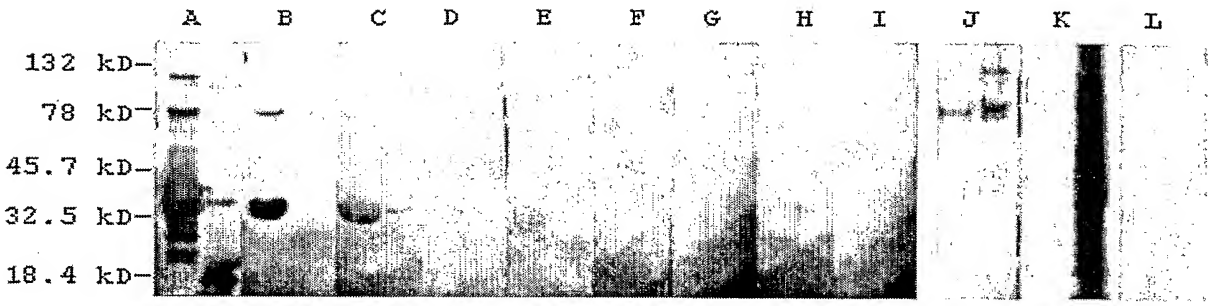
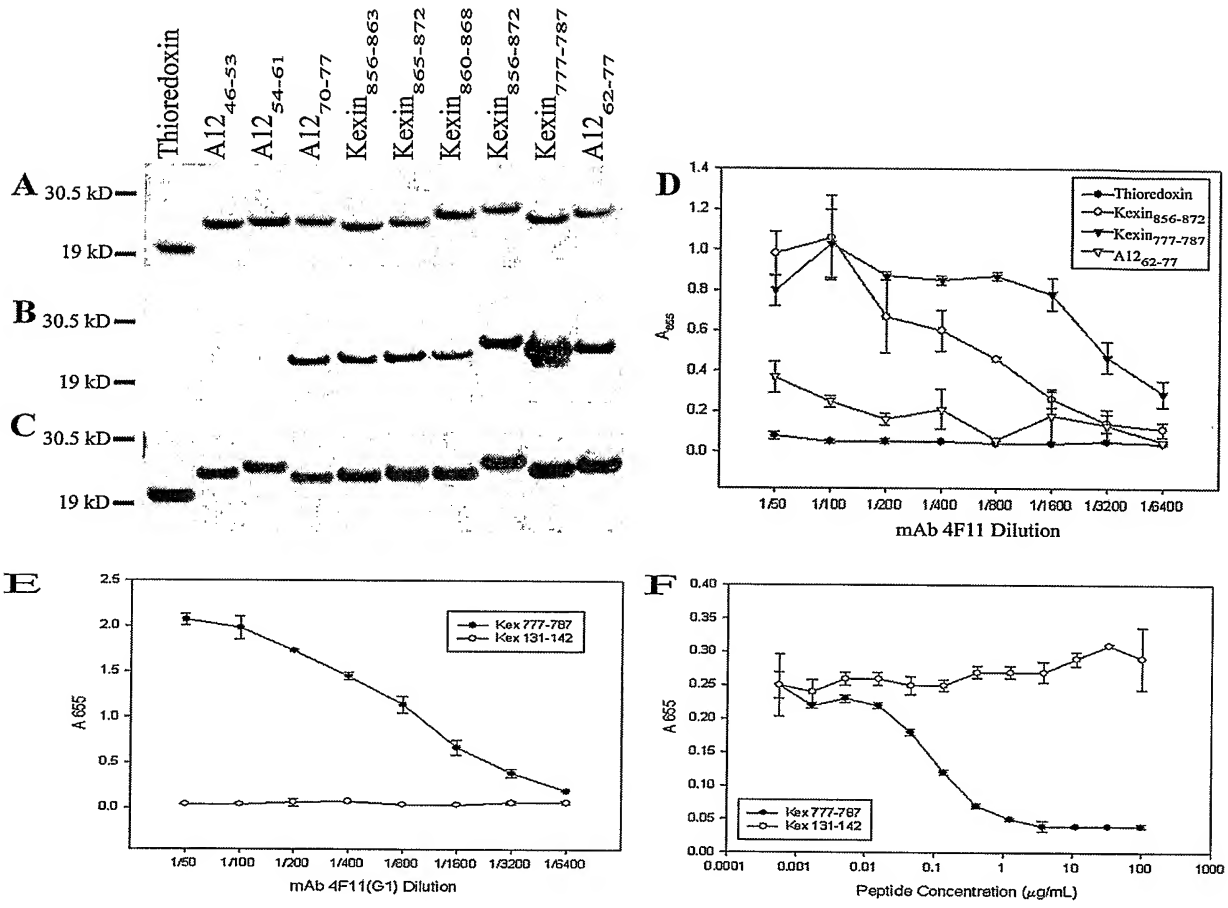


Figure 3

Construct	Sequence of insert
$KEXIN_{856-872}$	KPAPKPTPPKPAPKPAP
$KEXIN_{856-863}$	KPAPKPTP
$KEXIN_{865-872}$	KPAPKPAP
$KEXIN_{860-868}$	KPTPPKPAP
$KEXIN_{777-787}$	RPAPPKPTPQP
$A12_{46-53}$	EPQPQPAP
$A12_{54-61}$	EPRPQPTS
$A12_{70-77}$	KPRPQPTP
$A12_{62-77}$	KPRPQPTS-KPRPQPTP

Figure 4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B
C
30.5 kD
19 kD
Thioredoxin
A12 46-53
A12 54-61
A12 70-77
Kexin 856-863
Kexin 865-872
Kexin 860-868
Kexin 856-872
Kexin 777-787
A12 62-77
D
Thioredoxin
Kexin 856-872
Kexin 777-787
A12 62-77
A655
mAb 4F11 Dilution
E
Kex 777-787
Kex 131-142
A 655
mAb 4F11(G1) Dilution
F
Kex 777-787
Kex 131-142
A 655
Peptide Concentration (μg/mL)

Figures 5A-F

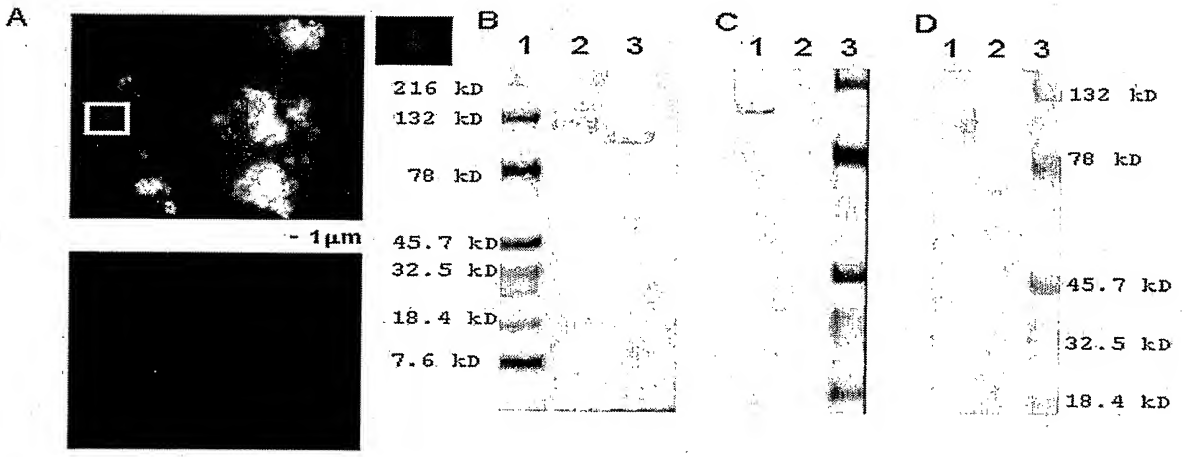
```
URSP2 PspA  EKELKEIDESDSEDYIKEGLRAPLQSKLDAKKAKLSKLEELSDKIDEL   280

URSP2 PspA  DAEIAKLEKDVEDFKNSDGEQAEQYLVAAKKDLDAKKAELENTEADLK   328

Kex856-872                                  KPAPKPTP.PKPAPKPAP
                                            ||||| | ||||| |||
URSP2 PspA  KAVDEPETPAPAPKPAPAPAPTPEAPAPAPKPAPAPKPAPAPAPTPEA   376
                                              :||| ||| | |
Kex777-787                                    RPAP.PKPTPQP

Kex856-872        KPAPKPTP.PKPAPKPAP
                  ||||| | ||||| |||
URSP2 PspA  PAPAPKPAPAPKPAPAPAPTPEAPAPAPKPAPAPRPAPAPKPAPDPKP   424
                  :||| ||| | |                 |||| ||| | |
Kex777-787        RPAP.PKPTPQP                  RPAP.PKPTPQP
```

Figure 6



Figures 7A-D

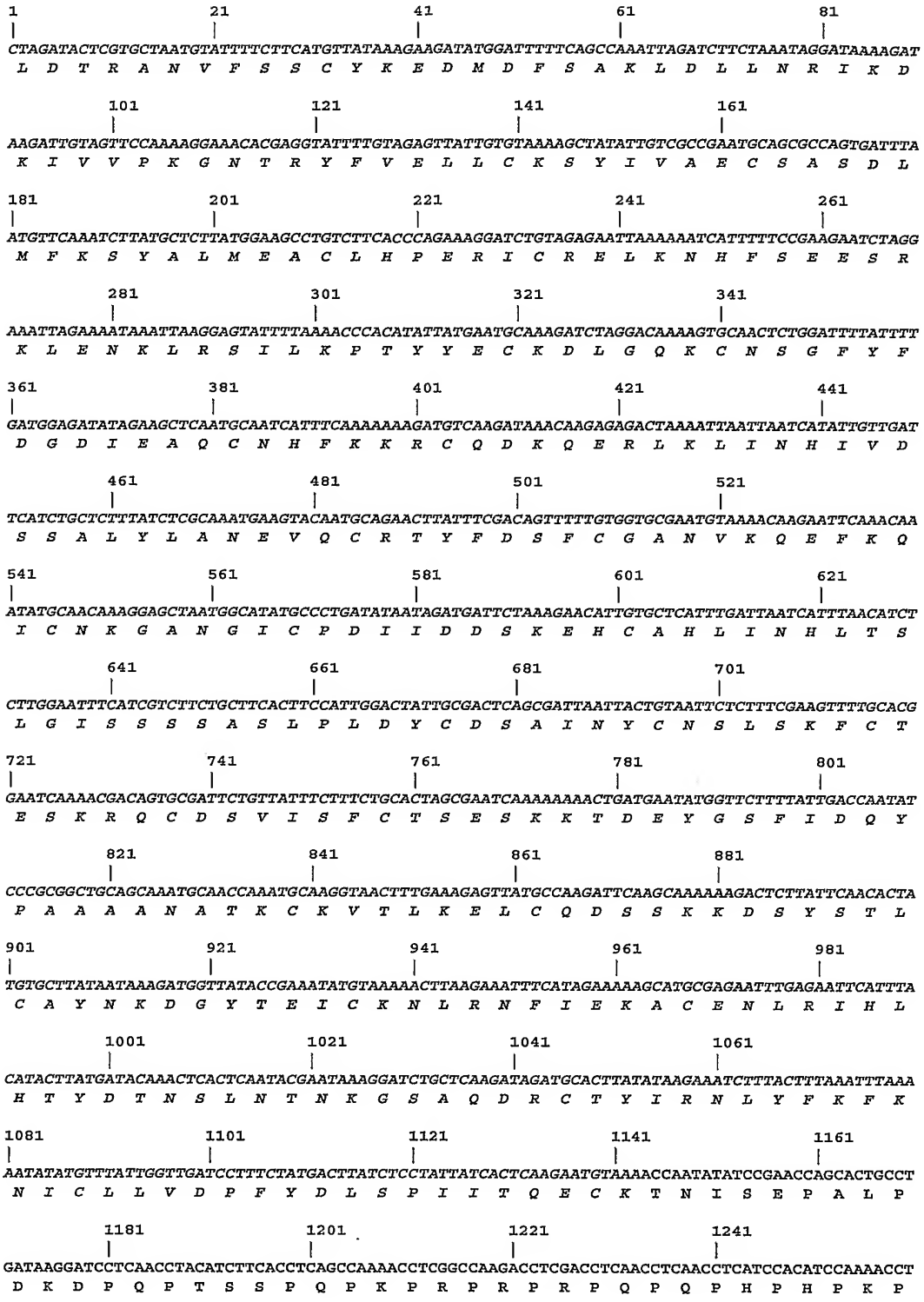

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Figure 8A

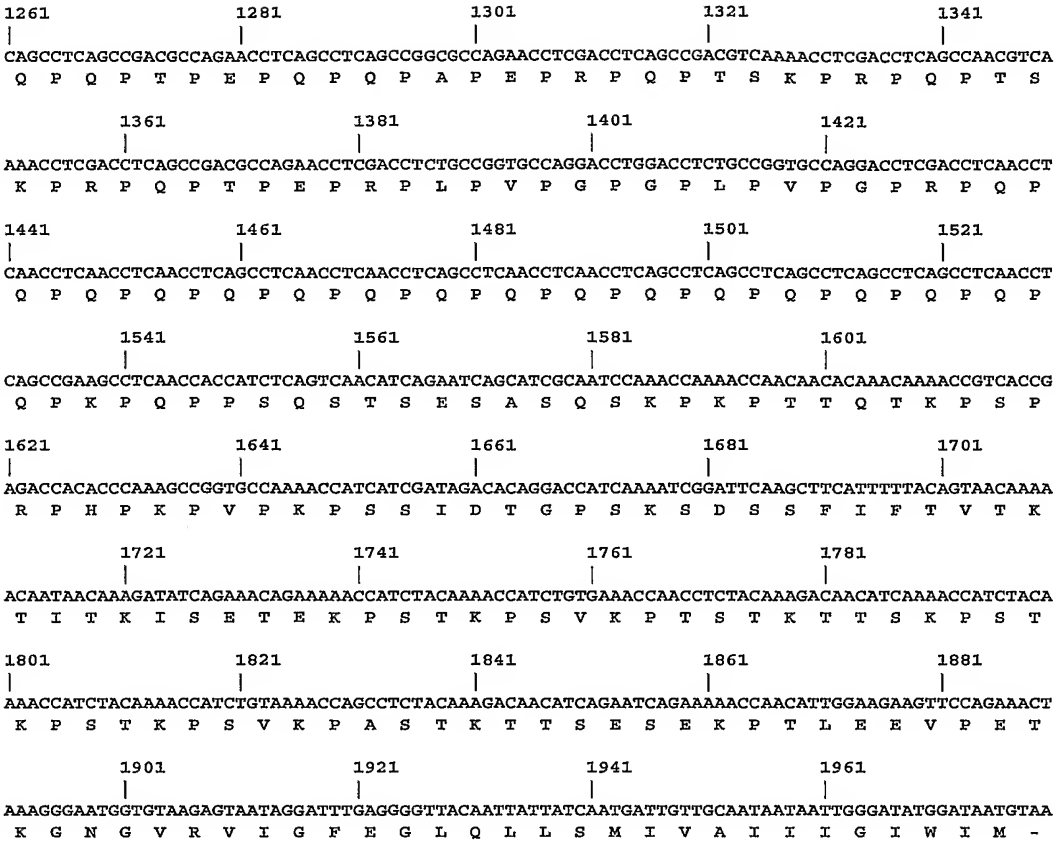
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Figure 8B